Preliminary Classification:

Proposed Class:

Subclass:

NOTE:

"All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129." M.P.E.P. § 601, 7th ed.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Director of the U.S. Patent and Trademark Office Mail Stop PATENT APPLICATION P.O. Box 1450 Alexandria, VA 22313-1450

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Jakke MÄKELÄ, Marko T. AHVENAINEN and Tapio HILL

WARNING: 37 C.F.R.§ 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(I) is filed supplying or changing the name or

names of the inventor or inventors."

For (title): Creation of Virtual Memory Space in a Memory

CERTIFICATION UNDER 37 C.F.R. § 1.10*

(Express Mail label number is mandatory) (Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date, <u>December 15, 2003</u>, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number EV 303713539 US, addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

> Annemarie Maher or print name of person mailing paper)

Signature of person mailing paper

WARNING:

Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

WARNING:

Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

2. Benefit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. § 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designated the United States of America; or
- (ii) Complete as set forth in § 1.51(b); or

Continuation-in-part (C-I-P)

- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

Divisional

Continuation

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120,121 or 365(c). (35 U.S.C. §§ 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 199, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

WARNING:		Feder benef	When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).						
			appli TRA	new application being transmitted claims the benefit of prior U.S. ication(s). Enclosed are ADDED PAGES FOR NEW APPLICATION NSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) IMED.					
3.	Pap	ers	Encl	losed					
	 A. Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 1.153 (Design) Application 34 Pages of specification 4 Pages of claims 9 Sheets of drawings 								
	WAI	RNIN	i i i	DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).					
	NOT	ΓE:	inven a pers inform	tifying indicia, if provided, should include the application number or the title of the tion, inventor's name, docket number (if any), and the name and telephone number of son to call if the Office is unable to match the drawings to the proper application. This nation should be placed on the back of each sheet of drawing a minimum distance of m (5/8 inch) down from the top of the page" 37 C.F.R. § 1.84(c)).					
				(complete the following, if applicable)					
			"PE	enclosed drawing(s) are photograph(s), and there is also attached a FITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 R. § 1.84(b).					
			and	enclosed drawing(s) are in color. Three (3) sets of color drawings a "PETITION TO ACCEPT COLOR DRAWING(S)" are attached. 37 R. §§ 1.84(a)(2) and 1.84(b).					
		☒	form infor						
	В.	Oth	er Pa	apers Enclosed					
	<u>0</u> <u>1</u> <u>0</u>	_Pa	ges c ges c ner .	of declaration and power of attorney of abstract					
4.	Add	ditio	nai p	papers enclosed					
	□ Am		endm	nent to claims					
		the	filing	n this application claims before calculating fee. (At least one original independent claim must be retained for poses.)					
		bee		claims shown on the attached amendment. (Claims added have mbered consecutively following the highest numbered original					

		Pre	limir	nary Amendment					
		Info	rma	ition Disclosure Statement (37 C.F.R. § 1.98)					
		For	m P	TO-1449 (PTO/SB/08A and 08B)					
		Cita	ation	s					
		Dec	clara	ation of Biological Deposit					
_		am	Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence						
				zation of Attorney(s) to Accept and Follow Instructions from entative					
		Spe	ecial	Comments					
		Oth	er						
5	Dec	clar	atio	n or oath (including power of attorney)					
NOTE:		A newly executed declaration is not required in a continuation or divisional application provided that the prior nonprovisional application contained a declaration as required, the application being filed is by all or fewer than all the inventors named in the prior application, there is no new matter in the application being filed, and a copy of the executed declaration filed in the prior application (showing the signature or an indication thereon that it was signed) is submitted. The copy must be accompanied by a statement requesting deletion of the names of person(s) who are not inventors of the application being filed. If the declaration in the prior application was filed under § 1.47, then a copy of that declaration must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning person under § 1.47 has subsequently joined in a prior application, then a copy of the subsequently executed declaration must be filed. See 37 C.F.R. §§ 1.63(d)(1)-(3).							
NOTE:		whice give resid	A declaration filed to complete an application must be executed, identify the specification to which it is directed, identify each inventor by full name including family name and at least one given name, without abbreviation together with any other given name or initial, and the residence, post office address and country or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 C.F.R. § 1.63(a)(1)-(4).						
NO	TE:	deci oath appi to § is fi	aration or di lication 1.53	entorship of a nonprovisional application is that inventorship set forth in the oath or on as prescribed by § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an electrical lectrical					
			End	closed					
			Exe	ecuted by					
				(check all applicable boxes)					
				inventor(s).					
				legal representative of inventor(s). 37 C.F.R. §§ 1.42 or 1.43.					
				joint inventor or person showing a proprietary interest on behalf of entor who refused to sign or cannot be reached.					
				This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F. R. § 1.47 is also attached. See item 13 below for fee.					
		X	Not	Enclosed					

NO	OTE:	com App may	pletic licatio be,	ne filing is a completion in the U.S. of an International Application or where the on of the U.S. application contains subject matter in addition to the International on, the application may be treated as a continuation or continuation-in-part, as the case utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT R U.S. APPLICATION CLAIMED.
				Application is made by a person authorized under 37 C.F.R. § 1.41(c) on behalf of <i>all</i> the above named inventor(s).
1	(The	dec	larat	ion or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).
				□ Showing that the filing is authorized. (not required unless called into question. 37 C.F.R. § 1.41(d))
6.	lnv	ento	orsh	ip Statement
W.A	RNIN	IG:	the o	e named inventors are each not the inventors of all the claims an explanation, including ownership of the various claims at the time the last claimed invention was made, should ubmitted.
Th	e inv	ento	orshi	p for all the claims in this application is:
		The	e sar	ne.
				or
				same. An explanation, including the ownership of the various claims me the last claimed invention was made,
			is s	ubmitted.
			will	be submitted
7.	Laı	ngua	age	
NC	TE:	Eng of \$	lish. 130.0	cation including a signed oath or declaration may be filed in a language other than An English translation of the non-English language application and the processing fee 10 required by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within as may be set by the Office. 37 C.F.R. § 1.52(d).
		× □		English Non English
				The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).
8.	As	sign	mer	nt
		X	An	assignment of the invention to Nokia Corporation
				is attached. A separate □ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or □ FORM PTO 1595 is also attached.
			X	will follow.
NC	TE:			signment is submitted with a new application, send two separate letters-one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78)

WARNI	vG:	A newly executed "CE continuation-in-part app 62-64.	RITHICATE UNDER	R 37 n ass	C.F.R. § 3.73 signee. Notice	3(b)" must i of April 30,	be filed when a 1993, 1150 OG
		a □ continuation □ parent application 0					
					Reel _		
						·	
9. Ce	rtifie	d Copy					
Ce	rtifie	d copy(ies) of applic	ation(s)				
Со	untry	,	Appln.	No.			Filed
Co	untry	,	Appln.	No.			Filed
from w	hich	priority is claimed:					
		is (are) attached. will follow.					
NOTE: NOTE:	or de This pare unde item OF I	foreign application formical f	.55(a) and 1.63. priority for which the nternational Applica elf entitled to priority GES FOR NEW AP ON(S) CLAIMED.	e app tion : v fron	olication being from which thi n a prior foreig	filed directly s application	y relates. If any n claims benefit n, then complete
A.	X	Regular applica	ation				
			CLAIMS AS F	ILEI	D		
Numbe	er file	d	Number Extra		Rate	37 C.F.I	Basic Fee R. § 1.16(a) \$770.00
Total C (37 C.F		s § 1.16(c)) 18 - 20 =	0	x	\$18.00 =		
		t Claims § 1.16(b)) 4 - 3 =	1	x	\$86.00 =		86.00
		pendent claim(s), c.F.R. § 1.16(d))		+	\$290.00		
		Amendment cance Amendment deletir Fee for extra claim	ng multiple-depe	nde	ncies is encl	losed.	
NOTE:	ame	e fees for extra claims a ndment, prior to the e lemark Office in any noti	xpiration of the tim	e pe	riod set for re	sponse by	ims canceled by the Patent and
		Filing Fee Cald	culation			\$_	856.00

(New Application Transmittal [4-1] page 6 of 11)

	В.		Design application (\$310.00 – 37 C		
				Filing Fee Calculation	\$
	C.		Plant application	1	
			(\$480.00 - 37 C.	F.R. § 1.16(g))	
				Filing Fee Calculation	\$
11. Sm	all I	Entit	y Statement(s)		
			ent(s) that this is (are) attached.	a filing by a small entity	under 37 C.F.R. §§ 1.9 and
WARNING	G:	whice pate whice has divis 1.53 entite appliant to the in the desired which will be seen a seen and the control of the control	th the status is availant does not affect a the are directly or indir been established. the indirection, or continuation, (d)), or the filing of a lement to small entity ication claiming ben ication, or a reissue a e patent if the nonprese statement in the present of the payment of	able and desired. Status as a iny other application or patent, rectly dependent upon the application in-part (including a continued reissue application requires a status for the continuing or reisefit under 35 U.S.C. § 119(e, application may rely on a staten ovisional application or the reise for application or in the patent or in the patent and status as	ed in each application or patent in a small entity in one application or including applications or patents cation or patent in which the status under § 1.53 as a continuation, I prosecution application under § new determination as to continued issue application. A nonprovisional), 120, 121, or 365(c) of a prior ment filed in the prior application or ue application includes a reference or includes a copy of the statement is a small entity is still proper and a filing fee will be treated as such a a)(2).
WARNING	G:	state	ement can unequivo rev. 2, July 1996 (em	cally make the required self-ce phasis added).	person or persons signing the ertification." M.P.E.P., § 509.03, 6 th
		_		nplete the following, if app	•
			Status as a sma	Il entity was claimed in pri	• •
			benefit is being	, filed on claimed for this application	, from which n under:
			35 U.S.C. §	□ 120, □ 121,	
				☐ 365(c), tatus as a small entity is s	etill proper and desired
				•	or application is included.
				ee Calculation (50% of A,	• •
			9	·	
				T	
NOTE:	а	re file	d within 2 months of	aid will be refunded if a small en the date of timely payment of a 36. 37 C.F.R. § 1.28(a).	tity statement and a refund request a full fee. The two-month period is
12. Rec	que	st fo	r International-1	Type Search (37 C.F.R. §	3 1.104(d))
			(0	complete, if applicable)	

13. Fee Payment Being Made at This Time ■ Not Enclosed No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. § 1.16(e) can be paid subsequently.) ☐ Enclosed □ Filing fee \$ ___ □ Recording assignment (\$40.00 - 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING **NEW APPLICATION.")** ☐ Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached. (\$130.00 - 37 C.F.R. §§ 1.47 and 1.17(i)) □ For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52(d) and 1.17(k)) Processing and retention fee (\$130.00, 37 C.F.R. §§ 1.52(d) and 1.21(I)) ☐ Fee for international-type search report (\$40.00; 37 C.F.R. § 1.21(e)) NOTE: 37 C.F.R. § 1.21(I) establishes a fee for processing and retaining any application that is abandoned for failing to complete the application pursuant to 37 C.F.R. § 1.53(f) and this, as well as the changes to 37 C.F.R. §§ 1.53 and 1.78(a)(1), indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid, or the processing and retention fee of § 1.21(I) must be paid, within 1 year from the notification under § 53(f). Total fees enclosed 14. Method of Payment of Fees □ Attached is a □ check □ money order in the amount of \$__ □ Authorization if hereby made to charge the amount of \$____ to Deposit Account No. to credit card as shown on the attached credit card information authorization form PTO-2038 ☐ Charge any additional fees required by this paper or credit any overpayment the manner authorized above. A duplicate of this transmittal is attached.

Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37

NOTE:

C.F.R. § 1.22(b).

(New Application Transmittal [4-1] page 8 of 11)

15. Authorization to Charge Additional Fees

WARNING:		If no fees are to be paid on filing, the following items should <u>not</u> be completed.					
WARNING:		Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.					
		The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No					
		□ 37 C.F.R. § 1.16(a), (f), or (g) (filing fees)□ 37 C.F.R. § 1.16(b), (c), and (d) (presentation of extra claims)					
NOTE:	presented the 1.16	ause additional fees for excess or multiple dependent claims not paid on filing or on later entation must only be paid or these claims canceled by amendment prior to the expiration of time period set for response by the P.T.O. in any notice of fee deficiency (37 C.F.R. § (d)), it might be best not to authorize the P.T.O. to charge additional claim fees, except sibly when dealing with amendments after final action.					
		☐ 37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)					
		☐ 37 C.F.R. § 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a))					
		☐ 37 C.F.R. § 1.17 (application processing fees)					
WARNING:		"A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).					
		□ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))					
NOTE:	maili	ere an authorization to charge the issue fee to a deposit account has been filed before the ing of a Notice of Allowance, the issue fee will be automatically charged to the deposit bunt at the time of mailing the Notice of Allowance. 37 C.F.R. § 1.311(b).					
NOTE:	to sr is be n	C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement mall entity status must be filed in the application prior to paying, or at the time of paying, . sue fee." From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must made even if the fee is paid as "other than a small entity" and (b) no notification is required if change is to another small entity.					

16. Instructions as to Overpayment

Customer No. 004955

NOTE:	a re	amounts of twenty-five dollars or less will not be returned unless specifically requested within asonable time, nor will the payer be notified of such amounts; amounts over twenty-five ars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. §
	1.26	(a).
		Credit Account No
		Refund
Date: [Dece	ember 15, 2003
Reg. No	o. 2	SIGNATURE OF PRACTITIONER 27,550
Tel. No	. (20	3) 261-1234 Alfred A. Fressola (type or print name of prostitioner)
		(type or print name of practitioner
		Ware, Fressola, Van Der Sluys & Adolphson, LLP
		P.O. (Correspondence) Address
		Building Five, Bradford Green 755 Main Street, P.O. Box 224 Monroe, CT 06468

	Incorporation by reference of added pages								
	prio sta the	eck the following item if the application in this transmittal claims the benefit of or U.S. application(s) (including an international application entering the U.S. ge as a continuation, divisional or C-I-P application) and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE NEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.)							
	☐ Plus Added Pages for New Application Transmittal Where Benefit of U.S. Application(s) Claimed								
		Number of pages added							
		Plus Added Pages for Papers Referred to in Item 4 Above							
		Number of pages added							
		Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.							
		Number of pages added							
		☐ Plus "Assignment Cover Letter Accompanying New Application"							
		Number of pages added							
×	Statement Where No Further Pages Added								
		(if no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item.							
	⊠	This transmittal ends with this page							